

- Study the structure and function of small vessels $>40\ \mu\text{m}$ under near-physiological pressure
- Ergonomic design to facilitate easy and quick mounting of arteries. Simplified precise cannula alignment
- Combine the system with fluorescence imaging to study intracellular Ca^{2+}



The Blind Sac Pressure or Perfusion Myograph System - 114PB is a system used to study the structure and function of isolated sections of small vessels (diameter $>40\ \mu\text{m}$) under near-physiological conditions. Vessel diameters can be measured in response to pharmacological and physiological stimuli.

A computer continuously records measurements with the dimension analysis software - MyoVIEW. The 114PB will differ from other DMT pressure myographs because this system is designed for constant pressure experiments.

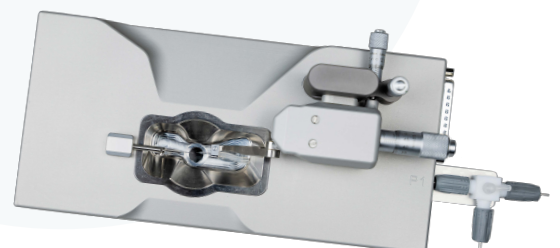
A built-in heating system maintains the chamber temperature, eliminating the need for continuous and often costly superfusion. The chamber cover includes ports for optional superfusion, rapid draining and filling, oxygenation, and cumulative addition of drugs. To facilitate cleaning, the chamber is made of acid-resistant stainless steel.

Because of the nature of the 114P-BS system, the primary area of research is physiological responses under myogenic tone. Any experiment studying a pressurized vessel can be performed.

The state-of-the-art software MyoVIEW, custom-made for DMT Pressure Myographs, will collect data such as vessel wall thickness, changes in vessel and lumen diameter, intravascular pressure, and a host of other calculated parameters that can be collected, setting pressure or perfusion myography apart from standard organ bath techniques.

The Acquisition & Analysis Package

DMT Inverted Microscope, inverted Zeiss, Nikon, or similar inverted microscopes (contact DMT for further specifications) with USB camera, computer, and Data Acquisition Software - MyoVIEW.





PRESSURE MYOGRAPH SYSTEM - 114PB

CHAMBER:

Chamber volume (min)	3.1 ml
Chamber(s)	1
Chamber material	Acid resistant stainless steel
Vessel size	>40 μ m
Vessel alignment	X, Y, Z
Micrometer resolution	0.01 mm
Mounting type	Cannulas

TEMPERATURE:

Range	15.0 to 50.0 $^{\circ}$ C
Resolution	0.1 $^{\circ}$ C
Stability	\pm 0.2 $^{\circ}$ C
Heating	Yes

TRANSDUCER PRESSURE:

Output reading	mmHg
Range	0 - 250 mmHg
Pressure stability	\pm 0.5 mmHg
Resolution	0.1 mmHg

RESERVOIR:

Heated	Yes
Capacity	250 ml
Pressure circuit	Closed
Air inlet	1 bar (max)

OUTPUT:

Data communication	USB 2.0
Analogue output channels	4
Analogue output range	\pm 2.5 V

